

FEBRUARY
1955

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COMMAND RECEIVERS

See Page 2 for Conversion Details

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Command Transmitters: Freq. 4-5.3 Mc., 5.3
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6V6 M.O./xtal osc., 807 buffer/doubler, pair
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Genemotor Power Supply, new, SCR522, 24v.
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834, R.C.A.	£1
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954 American	10/-
955 American	10/-
957 Acorn Triode. Filament: 1.25v. at 50 Ma., plate current 2 Ma. Ideal for portable equipment	10/-
EF50	10/-

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3Q5	10/-	7W7	10/-
6A3	10/-	7Y4	10/-
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6C8	10/-	12SK7	10/-
6F5	10/-	12SQ7	10/-
6F6	10/-	12SR7	10/-
6F8	10/-	807	10/-
6H6	5/-	813	60/-
6J5GT	10/-	815	50/-
6J6	15/-	832	50/-
6K6	10/-	866	26/-
6KTG	7/6	936	10/-
6L7	10/-	1625	15/-
6N7	10/-	1626	10/-
6N8	15/-	1629	10/-
6R7	10/-	2051	10/-
6R8T	10/-	7193	5/-
6SH7	5/-	9002	10/-
6SH7GT	4/-	9003	10/-
6SJ7	10/-	9004	10/-
6SK7	10/-	EF50	7/6
6SL7	15/-	O4A	10/-
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		VR65A	2/6

BC733D Crystal Locked Receiver. Tuning
range 108 to 120 Mc. I.F. freq. 6.5 Mc. Valve
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Receiver R.A.X. 7 valves, 4 bands: 200-300
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Co-ax. Connectors, male/female, small, Pi
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2075 Kc.	7012 Kc.	7118 Kc.	8318 Kc.
2716 Kc.	7013 Kc.	7121 Kc.	8230 Kc.
2482.5 Kc.	7020 Kc.	7125 Kc.	8488 Kc.
2503 Kc.	7021 Kc.	7126 Kc.	8500 Kc.
3509 Kc.	7022 Kc.	7130 Kc.	9125 Kc.
5511 Kc.	7023 Kc.	7124 Kc.	10 Mc.
5512 Kc.	7031 Kc.	7145 Kc.	10,511 Mc.
3515 Kc.	7032 Kc.	7156 Kc.	10,524 Mc.
3516 Kc.	7032.5 Kc.	7163 Kc.	10,530 Mc.
3528 Kc.	7041 Kc.	7174 Kc.	10,536 Mc.
3532 Kc.	7052 Kc.	7179 Kc.	10,544 Mc.
3539.3 Kc.	7062 Kc.	7262.3 Kc.	10,546 Mc.
3634 Kc.	7063 Kc.	8000 Kc.	10,563 Mc.
3640 Kc.	7064 Kc.	8017.5 Kc.	11 Mc.
3675 Kc.	7065 Kc.	8027 Kc.	12,803 Mc.
4285 Kc.	7072 Kc.	8028.5 Kc.	14,420 Mc.
4600 Kc.	7089 Kc.	8092 Kc.	14,105 Mc.
5000 Kc.	7093 Kc.	8155.71 Kc.	14,322 Mc.
		8171.250 Kc.	14,322 Mc.

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ADVERTISING REPRESENTATIVE:
BEATRICE TOUZEAU,
96 Collins St., Melbourne, C.I.
Telephone: MF 4505

PRINTERS:
"RICHMOND CHRONICLE,"
Shakespeare St., Richmond, E.I.
Telephone: JE 2418.

MSS. and Magazine Correspondence should be forwarded to the Editor, "Amateur Radio," C.O.R. House, 191 Queen Street, Melbourne, C.I., on or before the 8th of each month.

Subscription rate in Australia is 12/- per annum, in advance (post paid) and A15/- in all other countries.

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WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the broadcast.

VK3WI: Sundays, 1100 hours EST, 7146 Kc. and 2000 hours EST 59 and 144 Mc. No frequency checks available from VK3WI. Intrastate working frequency, 7135 Kc.

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VK3WI: Sundays, 0930 hours WEST, on 7146 Kc. No frequency checks available.

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Melbourne, C.I.

EDITORIAL



TELEVISION AND THE PROGRESSIVE AMATEUR

Exactly five years ago "Amateur Radio" published one of its first editorials concerning Television and discussed the necessity for members taking an interest in new techniques with regard to the prevention of harmonic radiation.

This raises the question of how many Amateurs do keep pace with modern electronic developments. Some, fortunately, due to their vocation, are of necessity required to give their attention to the progress of their particular science. Some, however, follow more mundane paths of life and the media of their hobby is only participated in during leisure hours.

At this juncture it is worth noting that progressive science does not wait for its friends and the Amateur must spend some of his time mastering new problems, studying new ideas, and experimenting with new pieces of equipment. The nearness of Tele-

vision and its kindred t.v.i. offers a convenient starting place for this renaissance.

With new fields of endeavour and new methodology, the Amateur will find a world where he will regain some of the delights of discovery he experienced when he first started his career in the world of electronics.

The use of frequency modulation, applications of the cathode ray tube, time bases of various forms, beam antennas and a thousand or more Television developments can be applied with profit to Amateur Radio. A knowledge of principles will pay dividends when the matter of t.v.i. is under consideration.

The progressive Amateur will still be "on the air" when Television arrives, using its advantages and benefiting by its techniques, because he has kept abreast of his hobby.

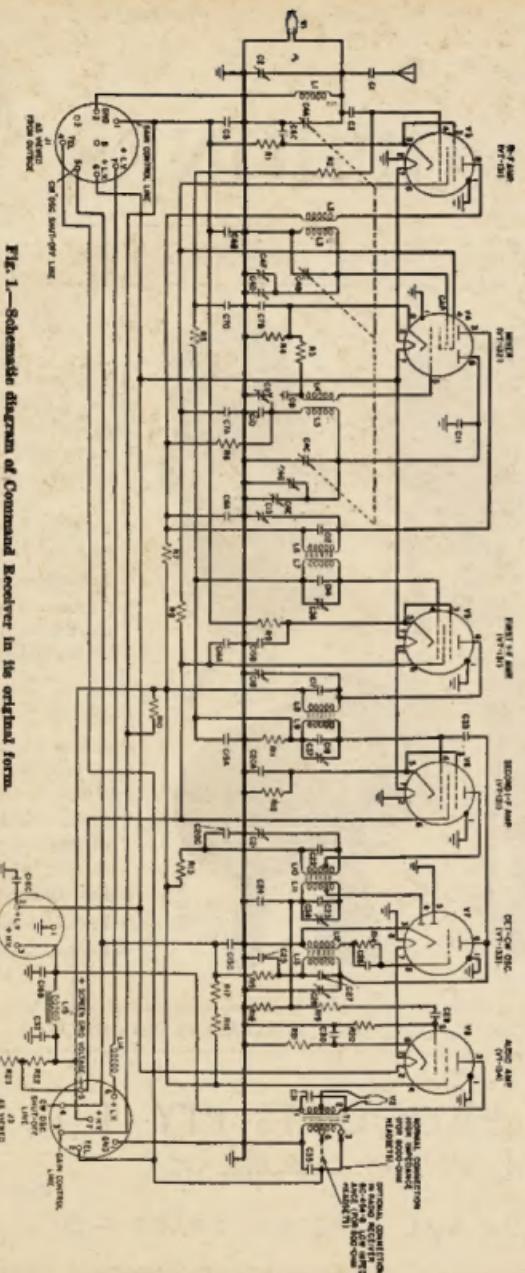
FEDERAL EXECUTIVE.

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R1—650 ohms
R2—5 megohms
R3—51,000 ohms
R4—420 ohms
R5—150,000 ohms
R6—200,000 ohms
R7—200 ohms
R8—200 ohms
R9—420 ohms
R10—300,000 ohms
R11—100,000 ohms

FIG. 1.—Schematic diagram of Command Receiver in its original form.



outside edge of the dial from 7-7.1 Mc. and then are continued on an inner circle from 7.1-7.15 Mc.

In operation, a glance at the main dial shows in which 100 Kc. segment the receiver is tuned and the auxiliary scale indicates the exact frequency.

To make the celluloid suitable for drawing the scales, rub the gloss off with fine glass paper.

14 Mc. RECEIVER CONVERSION

Let's start on the 14 Mc. receiver. We have already performed the basic modifications. Remove the top cover and the shield can over the variable condenser. The receiver may operate without these shields for rough frequency calibration. With a pair of long-nose pliers, carefully remove rotor plates from the variable condenser until only one rotor plate is left in each section. This should be the slotted plate, for tracking adjustment.

Now turn on the power and locate the receiver's h.f. oscillator by listening on the station receiver. The frequency will be much higher than it was originally, but we will have to go still further. Remove the plug-in coil unit from the bottom of the receiver, noting that it is polarised by the pin arrangement of the three coil plugs. Remove the oscillator coil from its shield can, and carefully remove the core from the coil. This should be replaced after re-winding, and its position is not too critical.

Remove only the large winding of the oscillator coil, and rewind it with about 10 turns as a start, spacewound. The wire size is not critical. We used number 24 enamelled wire. Put the coil back in its shield, replace the coil unit in the set, and turn on the power. The h.f. oscillator should now be somewhere around 15 Mc. on the station receiver. Check the bandspread for approximately the correct limits.

If you are very "foxy," you can use the original dial markings, with new figures, for the new frequency calibration. Slight adjustment of the number of turns, and the oscillator trimmers and padders will give proper bandspread.

Tracking may be improved if necessary by bending the slotted sections of the tuning condenser rotor plate. Remember our limits of 15,415 Kc. (14 Mc.) and 15,815 Kc. (14.4 Mc.). Rewind the mixer and r.f. coils, using about 11 turns on each, spacewound. Rewind the mixer coil primary, using 18 turns of number 30 d.s.c., interwinding part of it with the secondary, to give increased gain. With the coils back in the receiver, and power on, adjustment of the trimmers should now bring in signals, using a short wire antenna. Slight changes in turns may be necessary, and adjustment of the slotted sections of the tuning condenser rotor plates may have to be made, to secure tracking of these two stages. Now replace the shield over the condenser, and fasten the coil unit securely in place.

Install the noise limiter circuit as shown in Fig. 2, in the ground return of the second detector diode circuit. Replace the bottom cover. Use the station v.f.o. or frequency meter for final receiver calibration with the shield in place. The top cover may now be replaced, and the 14 Mc. receiver is ready.

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TYPE "80"

A high quality Moving Coil Microphone of striking appearance and fidelity.

- Ideal for transmission of voice or music.
- Good appearance.
- Solid cast case, finished in stoved black enamel, full tilting head.



TYPE "80"
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TYPE "40"
RIBBON

TYPE "8XA"

A quality Crystal Insert with "Zephyrfil" filter.

- Durable chrome steel cage.
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TYPE "8XA"
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A high grade Studio Microphone, reasonably priced, for those requiring high fidelity.

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Precision built Moving Coil Generator provides good quality reproduction.

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AVAILABLE FROM ALL LEADING TRADE HOUSES

for use. It is an excellent six-tube superheterodyne, capable of pulling in even weak signals with ease.

28 Mc. RECEIVER CONVERSION

The conversion of the receiver for 28 Mc. is performed in a like manner, but with several additional improvements. First, remove the octal r.f. socket, and replace it with a 7-pin miniature socket, for a 6AG5. Replace the 620 ohm cathode resistor R1 (Fig. 1) with a 220 ohm resistor. Remove C6 and connect the small ceramic bypass condensers (as shown in Fig. 3) with as short leads as possible.

From the co-axial jack on the front panel, run a short length of small coaxial cable to terminals 1 and 6 of the oscillator coil socket, using terminal 6 for the shield. Tie terminal 6 to terminal 3 to ground the shield. Connect the 6AG5 filament and the mixer stage filament in series and use a 6K8 as the mixer tube. Each tube draws 0.3 amp. filament current.

Insert a 10,000 ohm 10 watt resistor between R22 and R23 (Fig. 1), to increase the screen voltage to approximately 140 volts. Connect the filaments of the two i.f. tubes in series, and use two 6AC7s in place of the 12SK7s in these sockets. Install the noise limiter circuit as shown in Fig. 2 in the ground return of the second detector diode circuit.

Now remove all but one rotor plate in each section of the tuning condenser, and use 6 turns on the r.f. coil, 5 turns on the mixer coil secondary, 9 turns on the interwound mixer primary, and 5 turns on the oscillator coil grid wind-

ing, all spacewound. Wind a one turn link of insulated wire over the ground end of the r.f. coil, and connect it to terminals 1 and 6 of the coil plug.

Using the station receiver, v.f.o. and frequency as before, align the receiver

for 28-29.7 Mc. coverage. In this case it will be easier to make a new dial plate than to attempt to make the receiver track to the old markings. As before, the final adjustment should be made with the condenser shield cover, and bottom cover, in place.

The preceding paragraphs cover in a few words many hours of work, but the results are well worth the effort. We now have a receiver that is hard to beat for sensitivity and good signal-to-noise ratio on 28 Mc.

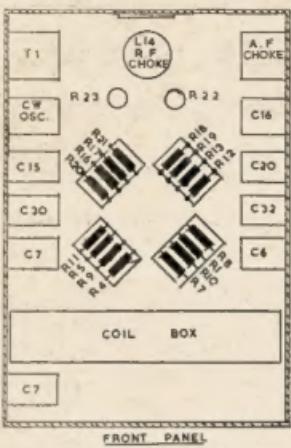


Fig. 4.—Underneath the Chassis.
View of receiver, inverted, and with front panel towards you. There are several other resistors and condensers not shown in the above diagram, but they are easily identifiable by inspection.

DX C.C. MANAGER WANTED

Federal Executive would be pleased to hear from any member who would be willing to act as DX C.C. Manager. The duties of this interesting position include the checking of QSLs and the listing of the DX C.C. members. The present Manager will assist the incoming Manager in taking over the position.

Kindly forward applications to the Federal Secretary of the Wireless Institute of Australia, Box 2611W, G.P.O., Melbourne, or phone WF 5504.

Economical Relay Operation

BY H. E. HODGE, VK3HE

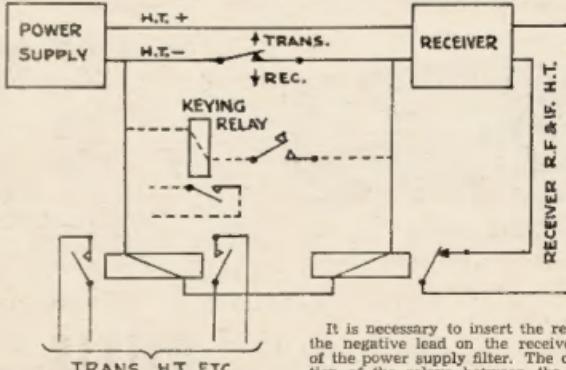
ALTHOUGH convenient, it is not always necessary to have a separate relay power supply available before relay switching of transmitters and receivers can be used. With many types of relays, it is possible to utilise the current drawn by the receiver from its power supply for their operation. The audio stages of the receiver must, of course, run all the time, and the receiver is disabled while transmitting by removing the h.t. from the screens, or screens and plates of the r.f.—and i.f.—perhaps—stages of the receiver. This condition is already provided for in some receivers, such as the BC348.

The relays can be connected in various combinations as desired to adjust their current ratings to the receiver current.

This well known method, which is of the "something for nothing" variety, has been in use in the writer's Amateur shack for some years and has been the means of very satisfactory relay operation during that time.

Three different receivers have been used over the years, and each has provided adequate relay power. In the present case, the receiver power supply is a separate unit, and the relays—obtained from a disposals i.f. unit—are inserted in the negative lead from power supply to receiver. While receiving, the relay windings are short

circuited by the "receive/transmit" switch contacts, preventing their operation, but when the switch is thrown to "transmit," the contacts open—removing the short circuit from the relays, which operate with the receiver current



through them, closing h.t. circuits to transmitter, etc., and breaking the h.t. lead to the r.f. and i.f. tube screens in the receiver.

A fairly large reduction in the current normally drawn by the receiver can be tolerated while transmitting as the current required to hold the relays in, once operated, is much less than that required to operate them in the first instance.

A keying relay may be operated, if desired, by connecting the key and relay in parallel with another relay or relays as shown in sketch, provided that the resistance values are suitable.

It is necessary to insert the relays in the negative lead on the receiver side of the power supply filter. The connection of the relays between the power transformer c.t. and negative was tried and found unsatisfactory, as the a.c. ripple there caused chattering of the relays.

Eddystone Communications Receivers

THREE WINNERS! And you can own one for a nominal down payment and monthly payments to suit your pocket.



£87/3/9 (inc. Sales Tax.
Speaker extra)

Width 16½", depth 10", height 8½".

FREQUENCY RANGE: Band 1—30.6 to 10.5 Mc.; Band 2—10.6 to 3.7 Mc.; Band 3—3.8 to 1.4 Mc.; Band 4—305 to 630 Metres.

VALVE LINE-UP:

R.F. Amplifier	EAF43	Beat Freq. Oscillator	EAF42
Frequency Changer	EAF42	Output	EL42
I.F. Ampl. and G.C.	EAF43	Noise Limiter and S Meter	EL41
A.F. Amp. and Det.	EAF43	Full Wave Rectifier	EZ40

ELECTRICAL PERFORMANCE: Sensitivity is better than 10 microvolts throughout for a 15 db signal/noise ratio and 50 milliwatts.

SELECTIVITY: 30 db down 10 Kc. off resonance. Image ratio better than 15 db at 30 Mc. and greater at lower frequencies.

AUTOMATIC GAIN CONTROL: A change of input of 30 db affects the output by less than 25 db.

S METER: A socket at the rear accepts the Cat. No. 869 S Meter.

FINISH: Fine black rippled. **Weight 30 lbs.**

DEPOSIT

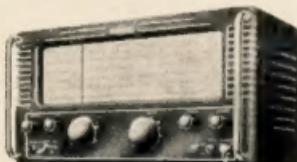
£27/3/9

Repayments

as low as

£2/17/1

per month



£128/7/7 (inc. Sales Tax.
Speaker extra)

Width 16½", depth 10", height 8½".

FREQUENCY RANGE: Band 1—32 to 18 Mc.; Band 2—12 to 4.5 Mc.; Band 3—4 to 1.7 Mc.; Band 4—145 to 480 Kc.

VALVE LINE-UP: Eleven valves perform the following functions—

R.F. Amplifier	6BA6	N.L. S Meter Diodes	6AL5/D77
Mixer (S.F.)	EC143	Output	N78
Oscillator	6AM6/Z77	Beat Freq. Oscillator	6BA6
Freq. Changer (to 28 Kc.)	EC143	Rectifier	5ZAG
I.F. Amplifier	6BA6	Stabiliser	VR150/30
Detector and A.G.C.	D77		

ELECTRICAL PERFORMANCE: Double Conversion Superheterodyne. Sensitivity is better than 5 microvolts for a 15 db signal/noise ratio.

SELECTIVITY: Variable over the range 20 db to 50 db down 5 Kc. off resonance. Image ratio better than 40 db at 30 Mc., greater at lower freq.

AUTOMATIC GAIN CONTROL: Output level is maintained within 15 db for a 30 db change of input, above 3 microvolts at 8 Mc.

AUDIO OUTPUT: Max. output is 3.5 watts. Pick-up terminals are fitted and audio stages give linear amplification over a wide frequency range.

S METER: Socket at the rear accepts Cat. No. 869 Signal Strength Meter. **Weight 40 lbs.**

DEPOSIT

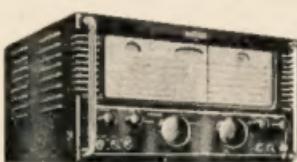
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Repayments

as low as

£4/3/7

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£206/18/4 (inc. Sales Tax.
Speaker extra)

Width 16½", depth 13½", height 8½".

FREQUENCY RANGES: Band 1—30 to 12.3 Mc.; Band 2—12.5 to 5.5 Mc.; Band 3—3.7 to 2.5 Mc.; Band 4—1.5 to 1.11 Mc.; Band 5—1120 to 480 Kc.

CIRCUIT: Fifteen valves perform the following functions—

Two R.F. Amplifiers	6BA6	Push-Pull Output	6AM5
Frequency Changer	SE205	Beat Freq. Oscillator	6BA6
Separate Oscillator	6AM6/Z77	Noise Limiter, S Meter	6AL5/D77
Two I.F. Amplifiers	6BA6	Rectifier	5ZAG
Detector and A.G.C.	6AL5/D77	Voltage Stabiliser	VR150/30
Two Audio Amplifiers	6BA6		

ELECTRICAL PERFORMANCE: Sensitivity for 30 milliwatts, 15 db signal/noise, 4 microvolts or better on all ranges.

SELECTIVITY: Bandwidths at 6 db down—Minimum 14 Kc.; first intermediate 7.5 Kc., second intermediate 4 Kc., maximum 2.5 Kc., and greater with crystal switched in and phased.

AUTOMATIC GAIN CONTROL: 9 db change of output for 100 db change of input, above 1 microvolt at 9 Mc.

FINISH: Polychromatic Grey. **Weight 47 lbs.**

DEPOSIT

£69/18/4

Repayments

as low as

£6/14/8

per month

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90 years.

Phone: MU 2426

144 Mc. Heterodyne Frequency Meter

DR. ROBERT H. BLACK,* VK2QZ

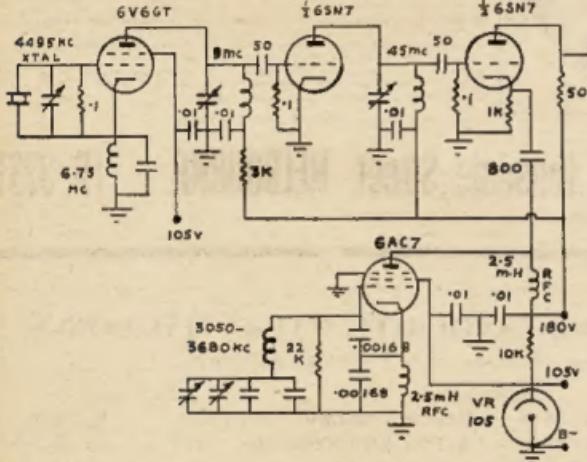
In a previous article, while discussing an approach to stable variable frequency operation at 144 Mc., it was suggested that the method could readily be applied to the construction of a frequency meter. Such a frequency meter has now been built and this article describes it.

The circuit diagram shows that the crystal oscillator and frequency multiplier are standard—commencing with a crystal in the region of 4.5 Mc., output is obtained (by ten times multiplication) at about 45 Mc. In the author's case the crystal was set up at 44950 Kc. and output was thus at 44.95 Mc.

to ensure stability of the variable-frequency oscillator.

Calibration consists first of all in accurately measuring the frequency of the crystal. The variable-frequency oscillator is then set so that it covers the required range and is then calibrated at 10 Kc. intervals. A table is drawn up and this calibration is converted to the corresponding 144 Mc. band frequencies. In the present case this latter set of frequencies was obtained by the formula:

$$144 \text{ Mc. freq.} = 3 (10 \times \text{crystal freq.} + \text{v.f.o. freq.})$$



The tubes used were 8V6GT/6G8G as triode oscillator with output at 8900 Kc. and one triode of a 6SN7 as a quintupler. The second triode of the 6SN7 was used as the mixer with grid injection at 44.95 Mc. and cathode injection at a frequency varying between 3050 and 3680 Kc. It was found that sufficient output was available at 144 Mc. when a 50,000 ohm resistor was used instead of a coil tuned to either 48 or 144 Mc. in the plate circuit of the mixer.

The variable oscillator uses a 6AC7 in a Clapp circuit. The grid coil was obtained from some disposals gear and the dial gave 3,000 divisions for the 180 degrees excursion of the variable capacitor. The range of the meter at 144 Mc. is from 144,000 to 145,890 Mc.

The screen voltage of the 6AC7 (and of the crystal oscillator) is regulated by a VR105. The whole unit is built in a steel box measuring 7" x 7" x 5 1/2"; the power supply being a separate unit. The usual structural precautions were taken

Crystal check points were available at three points as shown in the following table:

V.f.o. Freq.	V.f.o. Harm.	Xtal Harm.	144 Mc. Freq.
3210.7 Kc.	7th	5th	144.482 Mc.
3371.3 Kc.	4th	3rd	144.964 Mc.
3596 Kc.	5th	4th	145.838 Mc.

A further check on the v.f.o. calibration is available using its third harmonic and WWV on 10 Mc.—the corresponding 144 Mc. band frequency being 144.850 Mc.

The signal obtained with no aerial on the output terminal of the meter is adequate for beating with most signals; stronger signals can be reduced by rotating the beam or more output can be obtained from the meter by attaching a small piece of wire to the output terminal. The ease with which zero beat can be obtained with this meter contrasts markedly with the critical tuning when a high-order harmonic of the Bendix is used for frequency measurement at 144 Mc.

The dial readings and the corresponding 3 Mc. and 144 Mc. frequencies were

typed out as a list on several small sheets of paper and bound as a small book with stiff cardboard covers. In addition to the 144 Mc. range, incidentally, the oscillator is calibrated over the 3.5 Mc. band and so its output is available for use on the lower frequency Amateur bands.

A suggested set-up is one using a 5000 Kc. crystal (which can be adjusted accurately to frequency, using WWV) and output from the frequency multiplier at 45 Mc. The 3 Mc. output from a Bendix (perhaps amplified) could then be mixed with the 45 Mc. signal. Measurements at 144 Mc. could then be made with the same ease and order of accuracy which is available with the Bendix at its third harmonic frequency.

To conclude, one must answer the question: "Why bother about accurate frequency measurement on 2 metres?" The author was not able to hear VK2WH, whose frequency is 144.002 Mc., until he set up the receiver on that frequency and waited for the signal to appear—which it did.

It may be suggested that a week spent building a frequency meter is a lot of effort to hear just one signal, but one has heard of types spending months looking for the hundredth or two hundredth country on the lower frequency bands.

A.O.C.P. CLASS

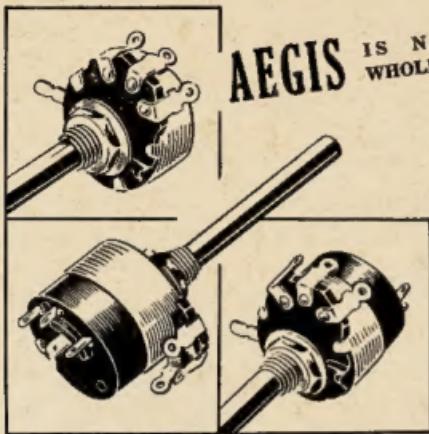
The Victorian Division A.O.C.P. Class will commence on Thursday, 3rd February, 1955. Morse and Regulations are held on Monday and Theory on Thursday evenings from 8 to 10 p.m. Persons desirous of being enrolled should communicate with the Secretary W.L.A., Victorian Division, 191 Queen Street, Melbourne (Phone FJ 6997 from 10 a.m. to 4 p.m.), or the Class Manager on either of the above evenings.

CHANGE OF ADDRESS

W.L.A. members are requested to promptly notify any change of address to their Divisional Secretary, not direct to "Amateur Radio."

* "The Chalet," 2 Yeriton Avenue, Hunter's Hill, New South Wales.

† "Amateur Radio," December, 1954.



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Writing an Article for "Amateur Radio"

Dear Reader,

One of the purposes of this magazine is to publish technical articles. One of the biggest headaches of the Magazine Committee (and in particular of the Technical Editor) is the continual shortage of articles.

From what we hear on the air, there are enough people doing interesting things to positively flood us out with articles. But the articles never arrive, the pen is never put to paper. Why?

Strangely enough, one of the commonest reasons seems to be just plain shyness at committing things to print. Next is ignorance of how to go about it. Well, we do want YOUR article and if you read on we will tell you how to go about it.

WHAT CAN YOU WRITE ABOUT?

Anything which may be of interest to any other Amateur. If it interests more than one, so much the better. The easiest thing to write about is something you have built, big or small. (There is a terrific demand for small articles of the Hints and Kinks variety.) Test equipment, v.h.f., mobile, antennae, gear for the newcomer, receivers, transmitters are all needed. There is also a place for theoretical or instructional articles but don't try these without a bit of experience. If in doubt, ask the Editor if he thinks the subject would make a suitable article.

HOW DO YOU WRITE IT?

Technical articles should be written in as simple and direct a manner as possible. The "level" should be chosen to suit the subject and the type of reader for whom the article is intended. Most articles will be intended for that mythical being, the average reader. Simple sentences are usually far more effective than long involved sentences.

Plan your article along logical lines so that the reader does not have to jump backwards and forwards between the various sections. For example, a simple constructional article could be organised as follows:—

Introduction: Scope and aim of the article, advantages of the equipment, etc.

Circuit: General description.

Layout and Construction: Special features.

Operational Details: Alignment, testing, etc.

Results achieved.

If possible, type your article and always use double spacing; otherwise use lined paper and remember that your article will have to be read by printers and other persons who may not be acquainted with technical terms, so write legibly. For preference use a paper size of 8" wide by 5½" deep (half quarto) and leave 1" margins. The printer, quite rightly, charges us for the extra time involved in handling articles written on the backs of tram tickets, brown paper, confetti, etc.

Write on one side only, number each sheet, and write your name and the title on each sheet.

Articles should be as brief and concise as possible; "padding" should be avoided at all costs. Never hesitate to submit an article simply because it appears to be of less than average length.

Use standard English and avoid jargon such as "short" for "short circuit," "amp." for "current," "volts" for "voltage," etc.

When finished, get someone to read it out aloud. You will soon see if it has continuity and is legible to a person other than yourself.

Sketches and circuit diagrams should be drawn on separate sheets of paper with the figure number, title and your name on the top. Almost invariably these will have to be re-drawn by our volunteer draughtsmen. This is one of the hardest yet least known jobs of the Magazine Committee. If you have draughting knowledge or can get it done by a friend, then help us to ease the draughting bottleneck by supplying circuit diagrams ready for the block makers.

The width is the important measurement. If the drawing will occupy one column in width, make your drawing 4½" wide, as it will be reduced in processing to half size. Two and three column drawings should be 8" and 13½" wide respectively.

All lettering should be 3/16" high and make all lines heavy to help reproduction.

To avoid wastage of block costs, all lettering should be kept within the confines of the drawing; we have to pay on the maximum width and height taken by the block maker, in calculating the cost.

At present we cannot afford to print photographs, the blocks cost too much. But we are always happy to print photographs if the author supplies the blocks.

As the circuit is usually the heart of the article, you cannot take too much care in seeing that it is correct, that the values of all components are given and that it is arranged so as to be easily read. There are two systems for giving the component values; one is to print the value by the component, the other is to label them R1, R2—C1, C2—L1, L2, etc., and give a table of values underneath. The first system is probably easier to prepare and to read, whilst the second is the only way of stating voltage ratings, wattages, etc., of components. We have no fixed ideas as to which to use. Probably a compromise system is best where usual components are marked with values and unusual components marked R1, etc., and commented on underneath.

WHAT THEN?

Having written the article and prepared the diagrams, send them to the Sub-Editor of your State. His address appears in the heading of Federal and Divisional Notes in the March, June, September and December issues of "Amateur Radio." The Sub-Editor col-

lects all notes and articles for the State and sends them to the Editor. On receipt here, the Secretary of the Victorian Division will acknowledge receipt to both the Author and the Sub-Editor concerned. If you do not receive acknowledgement in say three or four weeks, contact your Sub-Editor and ask him what's happening.

The normal delay for draughting, block-making, and type setting is about six weeks. Articles and blocks have to be in the printer's hands not later than the first of the month prior to the month of publication. So the shortest possible time in which an article can be published is approximately three months. Circuits which involve a lot of draughting might take longer.

Looking forward to your article,
We remain, your humble servants,
THE MAGAZINE COMMITTEE

AWARDS FOR TECHNICAL ARTICLES

The Council of the Victorian Division, W.I.A., have decided to make an annual award of up to £5 available for the best article or articles printed in "Amateur Radio" from July issue to June issue of the following year. The judging to be carried out by the Magazine Committee of "Amateur Radio."

A.R.R.L. CONTEST

Phone: Feb. 11-13 and March 11-13
C.W.: Feb. 25-27 and March 25-27

In the 21st A.R.R.L. Contest two week-ends are devoted to c.w. and two to phone operation. The rules are the same as those of last year, with this exception: U.S. and Canadian Amateurs will send a signal report plus their State or Province (instead of indicating input power). This information is of special interest to overseas stations aiming to fill in States for W.A.S. and Provinces for W.A.V.E.

Phone Section: 2400 hours GMT Feb. 11 to 2400 hours GMT Feb. 13; 2400 hours Mar. 11 to 2400 hours Mar. 13.
C.W. Section: 2400 hours GMT Feb. 27; 2400 hours Mar. 25 to 2400 hours Mar. 27.

ERRATA

In the article, "An Electronic Keyer," December, 1954, issue, the author has drawn our attention to some errors in same. Under the heading of "Circuit" line 14, R5 should read R6. In Fig. 1, the 1 meg. resistor in plate circuit of V1 should read R6. In the same diagram the power supply symbols should be reversed, i.e. h.t. positive is earthed and h.t. negative connected to circuitry.

NATIONAL FIELD DAY, 1955

RULES

1. The National Field Day Contest of the Wireless Institute of Australia will be held on **Sunday, 6th March, 1955**. The Contest will be of 12 hours' duration, commencing at 0900 hours E.A.S.T. and will continue until 2100 hours E.A.S.T.

2. The Contest is limited to portable stations operating within the Commonwealth and its Mandated Territories on a power not exceeding 25 watts input to the final stage with the aerial con-

nected, with a special section for fixed stations working to portable stations, and a special multiplier which, it is again hoped, will encourage the use of low power equipment.

3. A portable station for the purpose of the Contest is defined as one whose power is not derived from either private or public mains, shall not be located closer than five miles airline from the home of the operator(s) and shall not be situated in any occupied dwelling or building.

4. No apparatus is to be set up or erected on the site of the portable station earlier than 24 hours prior to the commencement of the Contest. A station may be moved from one site within a State to another within the same State during the Contest.

5. More than one operator may be used in the operation of the portable station, provided that all operators are licensed Amateurs.

6. Operation may be on any of the recognised Amateur bands, and more than one transmitter may be used, providing that only one transmitter is used at any one time.

7. When calling, c.w. stations will use the call "CQ NFD," and phone stations will use the call "CQ National Field Day" to indicate that they are portable stations. Attention is directed to the requirements for portable operation as defined in the P.M.G. Handbook for the Guidance of Amateur Operators.

8. **Sections:** The Contest is divided into four sections, namely:—
(a) Open.
(b) C.w.
(c) Phone.
(d) Fixed Station.

The open section will consist of phone and c.w. Portable station participants may enter each of sections (a), (b), (c), and (d), provided a separate log is entered in each case.

9. Logs must be forwarded to the Contest Committee through the **Divisional Council** for membership checking in time to reach Box 1234K, G.P.O., Adelaide, not later than Saturday, 2nd April, 1955.

10. Logs must be filled in in the following order: Date, Time (E.A.S.T.), Band, Emission, Power Input to the final stage with the aerial connected, Call Sign of the Station contacted, RST number sent, RST number received, location of station contacted, points claimed. The log must be headed with the title of the Contest, section entered, call sign of the competitor, location of the station. At the conclusion of the log a summary of contacts must be shown together with a description of the equipment used including h.t. voltage to the final stage, tube(s) in p.a. stage, antenna used, and call signs of all operators.

11. The completed log must be signed by each of the operators with a statement that the P.M.G. Regulations and the rules of the Contest have been observed.

12. The decisions of the Federal Contest Committee will be final in all matters concerning the Contest.

13. Failure to completely observe the conditions of rule 10 will lead to automatic disqualification of a competitor.

14. **Scoring:** For the purpose of the Field Day the following constitute VK Districts: VK2, VK3, VK4, VK5 (South Australia), VK5 (Northern Territory), VK6, VK7, VK8

15. Serial numbers must be exchanged during the Contest. Failure to record current serial numbers will mean loss of all points for that contact. Serial numbers will be as follows. The first three figures will be the RST report in the c.w. section, followed by the serial number of the contact. Serial numbers may commence with any number between 001 and 100 for the first contact, increasing by one for each successive contact. In the phone section the first two figures will be the RS report as in the c.w. section, followed by the three serial numbers. In addition, the QTH must be given in all cases.

16. Points will be awarded as follows:
Portable Stations—

- (a) For contacts with a fixed station within the Commonwealth (Rule 14) including the competitor's own State 1 point.
- (b) For contacts with other portable stations within the same State 2 points.
- (c) For contacts with stations in Asia, Oceania, North America, 3 points.
- (d) For contacts with stations in other countries other than (a), (b) and (c) 5 points.
- (e) For contacts with other portable stations outside the competitor's own State 10 points.

In order to encourage QRP operation, for portable stations, the total number of points scored will be divided by the power input in watts (with the serial connected).

If more than one transmitter and/or input power is used for portable contest purposes, the "power in watts" will be calculated as the average.

Fixed Stations—

- (f) For contacts with portable stations in the Contest within the same State 2 points.
- (g) For contacts with portable stations in the Contest outside the State 5 points.

17. **Awards:** An attractive certificate will be forwarded to the outright winners in each section, namely, Open, Phone, and C.w. Certificates will also be awarded to the winners of each section in each State, and to the fixed station in each State with the greatest number of points gained in contacting portable stations in the Contest. Further certificates may be awarded at the discretion of the Federal Contest Committee. The outright winners are not eligible for State Awards.

18. Certificates will be awarded to each operator of the winning stations, provided each operator has contacted at least 25% of the stations contacted.

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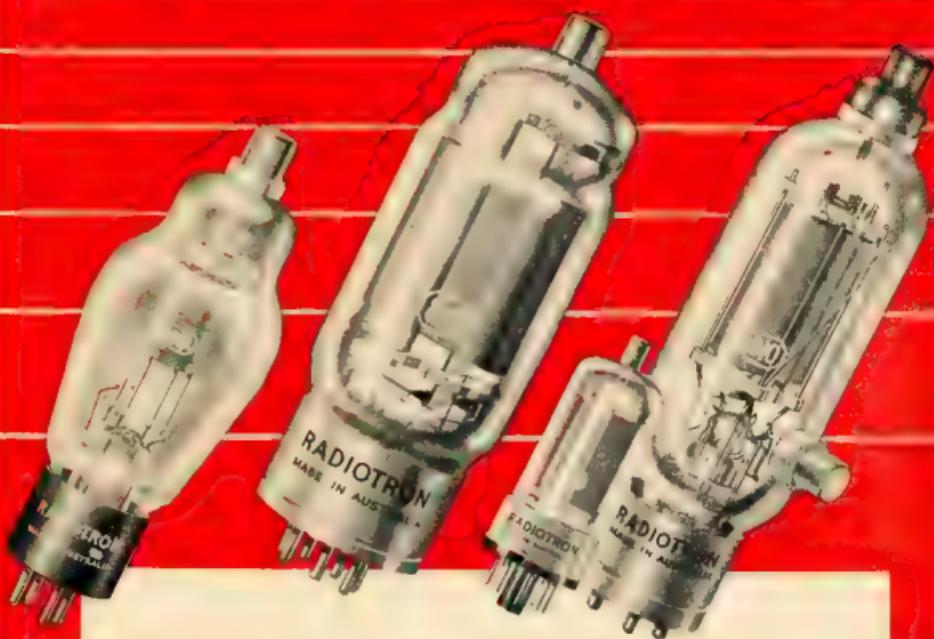
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ADDITIONS

New South Wales

2ON—R. L. Douglas, 9 Hillside Cres., Epping
2WO—H. F. Owen, 10 Wilson St., Blacketown
2ABR—L. R. Burton, Officers' Mess, R.A.A.F.
Station, Canberra, A.C.T.
2ANP—Naval Headquarters, Amateur Radio
Station, East Austr. Area, Point Point
2AVW—G. A. Warne, C/o. O.T.C., Bringelly.
2ZAT—J. Wakeling, Hargrave St., Armidale.

Victoria

3DX—G. W. Hitch, 31 O'Hare St., Blackburn.
2AJL—W. R. Adey, 10 George St., Ashwood,
S.E.11.
3AQH—H. F. Morris, Station, Yacht "Pan-
dora," Port Phillip Bay; Postal: 1 Raven
St., Kew, E.4.
2ZAG—L. W. Herbert, 7 Lower Main St., Stawell.

Queensland

4BE—A. F. W. Taylor, C/o. Dept. of Civil
Aviation, Aerodrome Station, Townsville.
4KM—W. A. McDowell, 149 Esplanade, Cairns.
4ZAS—L. L. Sharp, 9 Dora St., Moorooka,
Brisbane.

South Australia

5DW—D. W. Tacey, 23 Main Ave., Frewville
5FY—R. A. Catmull, C/o. Mr. A. V. Ferguson,
Eight Hill St., Gawler West.

Western Australia

6ZAM—R. R. McHenry, 98 Kalamunda Rd.,
Kalamunda.

Tasmania

7PH—N. G. Williams, Launceston Airport, Free
Bag Service, P.O., Launceston.

7ZAH—L. J. Hodgkinson, Wellington St., Long-
ford.

Teritories

1DC—R. L. Callow, Macquarie Island (Temp
license).
1ZM—B. E. Shaw, Macquarie Island
1ZQ—D. F. Lloyd, C/o. O.T.C. Receiving Sta-
tion, Port Moresby.
2TC—T. Cole, C/o. R.T.C., Wewak.
2VG—G. E. Smith, C/o. Wester Office, Norfolk
Island.

ALTERATIONS

New South Wales

5KX—7 Eaton Street, Woy Woy.
5OB—28 Flinders Avenue, Maroubra Brook 3N.
3TE—37 Estelle Street, Maryville, Newcastle
3VQ—23 Lauderdale Avenue, Manly
5AAN—37 Myrtle Road, Strathfield.
2ACM—C. H. Dept. of Civil Aviation, Radio
Construction, 10, P.O. Box 47, Mascot.
2ACS—Station, 32 The Circle, Griffith; Postal:
Box 631, Griffith.
2ARD—East Camp, S.M.A., Cooma.
2AS—228 Concord Road, Concord West.

Victoria

3AB—16 Doncaster Road, North Balwyn.
3JR—Police Station, Tangeranghala.
3IQ—Yacht "Sovereign," Hobsons Bay Yacht
Club, Williamstown.
3KP—4 Parkside Street, Malvern, S.E.4.
3NH—18 David Street, Preston.
3UE—12 Jellicoe Street, Box Hill South.
3AAC—5 Boorool Road, Box Kew.
3AK—100, 102, 104, Bairnsdale.
3AKC—5 Crisp Street, Wangaratta.
3ALN—3 Fernside Street, Nhill.
3APR—Ward 10, Geelong Hospital.
3AR—24 Lang Street, Ballarat East.
3AR—33 Warragul Street, Essendon.
3AXX—Station, 5 Paterson St., Carrum, Postal
Box 127A, Elizabeth St., P.O., Melbourne.

South Australia

5AO—19 Hardy Street, Goodwood Park
5HE—6 James Street, Plympton.
5KH—Mills Road End, Hills.
5KJ—40 Millwood Crescent, Millwood Estate.

Western Australia

6KU—35 Garforth Street, Applecross
6SK—Lot 85, Evans Road, Mt. Helens.

Tasmania

7TC—C/o TNT Radio Station Keiza
7MC—55 Paterson Crescent, George Town.
7SF—4 Mark Street, Hillcrest, Burnie.

Teritories

2VG—C/o. Dept. of Posts and Telegraphs, Lae.
2WV—C/o. R.T.C., Madang.

DELETIONS

New South Wales VKs 1ZK (now operating
under VK4BEI), 2AAU, 2AOQ (now operating
under VK5QOQ), 2AXM (now operating under
VK4XMI).

Victoria—VKs 3BN, 3DW (now operating
under VK5DW), 3CF, 3KT, 3PH (now operating
under VK5PH), 3SU, 3YG (now operating
under VK5YG).

Queensland—VKs 4BN, 4LQ (now operating
under VK2ALR).

South Australia VK5WJ.

Western Australia VK5KDJ.

Territories VKs 1BA, 1HL, 9GW (now operating
under VK2AVW).

FOR MONTH OF DECEMBER, 1954

ADDITIONS

New South Wales

2SD—L. W. N. Squires, 37 Fletcher St., Bondi
2AU—G. V. Randall, 5 Chalmers St., Inverell,
2AVI—A. Isaacs, 43 Tupper St., Marrickville,
2AJP—J. W. Porter, 11 Telope Ave., Caringbah,
2ASZ—D. Sellers, 25 Sandringham St., Sans
Souci, Sydney.
2ZAS—S. D. Russell, "The Nook," Oakes Rd.,
West Pennant Hills.

Victoria

3WB—R. S. Beckett, No. 3 Married Quarters,
School of Signals, Holcombe.

3AD—J. A. Denyer, Station: 33 Piccadilly
St., Oakleigh; Postal: 31 Toward St.,
Murrumbeena.

3AHU—H. C. Ulber, Mornington Rd., Frankston.
3AIW—L. H. Weller, Main St., Merrigum.

3AKT—M. K. Tulloch, Fernshaw Rd., Heales-
ville.

3AQK—J. H. Hildebrand, 133 Simpson St., East
Melbourne.

3ZAJ—J. I. Kelleher, 3 Palms St., Newport, W.I.S.

3ZAQ—D. H. V. Hankin, 1879 Malvern Rd., East
Malvern, S.E.3.

3ZBH—R. J. Harrison, 3 Tieran St., Foot-
scray, W.I.L.

3ZBS—3 St. 17, D'Addo St., Wendouree

West, via Ballarat.

3ZBW—D. G. Walker, The Lodge, Ormond Col-
lege, Carlton, N.Z.

Queensland

4VR—L. D. Ricketby, 33 Babbidge St., Coopers
Plains, Brisbane.

4ZAF—D. A. Fraser, Station: Cr. Locke and Ann
Sts., Warwick; Postal: P.O. Box 131, Warwick.

South Australia

5ZB—E. R. Stephenson, 4 Piccadilly Circus,
Colonial Light Gardens.
5ZAB—B. C. Jellett, Norton Vale, Hynam.
5ZAT—G. P. Tuck, 57 Cowra St., Mile End,
Adelaide.

Western Australia

5ZAQ—D. A. Meadowcroft, 123 Eton St., North
Perth.
6ZAS—S. J. Stewart, 98 Lawley Pde., Mt.
Lawley.

Tasmania

7LJ—D. R. Twiss, C/o. D.C.A., Cambridge Air-
port, Hobart.
7RN—R. D. Nicholls, 39 Pear St., Wivenhoe,
7ZAR—P. E. Blundstone, "Barclay," White-
mark, Flinders Island.
7ZAC—D. G. Cartwright, 39 Mary St., Laun-
ceston.

Territories

1HH—H. J. Hicks, Macquarie Island.
5VW—G. Stobie, C/o. Post Office, For Moresby.

ALTERATIONS

New South Wales

2EI—33 Fuller's Road, Chatswood
2N—Korsolet Street, Coorabong, IN
2SG—19 Jubilee Street, Dubbo
2AKN—21 Bourne Street, Ballarat.
2ASG—3 Duke Street, Granville.

Victoria

3PW—3 Kharoont Street, Caulfield.
3CQ—Tone Road, Wangaratta.

3VQ—4 Burgess St., Beaumaris, S.10.
3XJ—11 St. Andrews Place, Paddington.

3AMH—Station Walker St., Ballarat North;
Postal: 208 Eye St., Ballarat.

3AND—Corrie Avenue, Rosanna.

3ARI—13 Barkly Street, Ballarat.

South Australia

3KX—297 Goodwood Road, Kings Park.
3SR—60 McDonald Avenue, New Mindmarsh.
7BL—Keledown Avenue, Tarroona.

Tasmania

7RC—Station: Western Junction Airport, Postal:
C/o. D.C.A., P.O. Box 410, Launceston.

DELETIONS

New South Wales

VK2KIC—Victoria VKs 3IJ (now operating under
VK7TJ), 3WV (now operating under VK5WV),
3AQC.

Tasmania VK7ZAD (now operating under
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MIC 36



£6/18/6

Housed in attractive plastic case, this Microphone is ideal for home recording and public address, etc. Response unexcelled for its size and price. The performance is not affected by vibration, shock or low frequency wind noise. Omni-directional frequency response substantially flat from 30 to 7000 c.p.s. Recommended load resistance not less than 1 megohm dependent on low frequency response. Can be supplied complete with switch and floor stand adaptor as required at a small extra cost.

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SPECIFICATION

Recommended load resistance—not less than 1 megohm.
Output level—65 db ref. 1 volt/dyne/cm².
Frequency response—substantially flat from 30 c.p.s. to 10,000 c.p.s.
Directivity—non-directional.
Size—2 1/8" spherical diameter.
Connector—Standard International 3-pin.

MIC 16



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MIC 35



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SPECIFICATION

Output level:—65 db ref. 1 volt/dyne/cm².
Cable—approx. 4 ft. of co-axial supplied.
Weight—6 ozs. unpacked, 7 ozs. packed.
Dimensions—microphone only 2 3/8" x 2 1/8" x 1"

This omni-directional Microphone is robust in construction, with a pleasing appearance. Vibration, shock or low frequency wind noise will not affect the performance. The low frequency cut-off is dependent on the load resistance. The cut-off is given by the quotation, $F = 80 + R$, where $F = \text{c.p.s.}$, $R = \text{megohms}$. An adaptor (floor mounting) is available at low extra cost.

MIC 22



£9/18/6

SPECIFICATION

Output level =—50 db ref. 1 volt/dyne/cm².
Output impedance—equivalent to approximately 0.002 uF. (0.8 megohm at 100 cycles).
Frequency response—substantially flat from 40 to 6000 c.p.s.
Recommended load resistance—not less than 1 megohm, dependent on low frequency response

MIC 28



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Designed to give freedom of movement, this Microphone is small and non-directional. Housed in a soft moulded rubber case, which gives protection against shock, it is provided with a pin at the rear of the case for pinning to the lapel.

SPECIFICATION

Output level—approx. —55 db ref. 1 volt/dyne/cm².
Recommended load resistance—5 megohms.
Frequency response—level throughout the whole of the audible spectrum.
Capacity—0.0015 uF. at 1000 c.p.s.
Impedance—100,000 ohms at 1000 c.p.s.
Cord—6 ft. shielded cable.
Size—1 9/16" wide x 2 1/8" long x 1" thick.

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This Microphone has been designed for the high quality public address and home recording field. High sensitivity and flat characteristics are obtained by a specially designed acoustic filter. Housed in an attractive plastic case with an unexcelled response for its size and price. Unaffected by vibration, shock or low frequency wind noise. Omni-directional frequency response substantially flat from 30 to 7000 c.p.s.

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(MIC 32 illustrated)

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These inserts are available in varying sizes ranging from as small as 15/16" square to 1-13/16" round, with various thicknesses from 7/32" to 9/16". Suitable for every purpose such as hearing aids, public address, tape recording, amateur broadcasting, etc., they have responses from 2250 c.p.s. to 3500 c.p.s. at 5 db to 30 db. Insert can be supplied with or without 10 meg. resistor as required.

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MICROPHONE INSERTS



(MIC 23 illustrated)

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8 ohms.
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Prim.: 5,000, 3,000 ohms
P.P.
Sec.: 500, 250, 100, 125,
and 100 ohms.

★ Special Hi-Fi Output Type

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Type 896—5 watts.
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FEDERAL, QSL, and



DIVISIONAL NOTES

FEDERAL

DX C.C. CERTIFICATES

Interest in the competition re the designing of this Certificate has prompted inquiry as to what regulations are in the matter of wording.

On the old Certificates the letters "DX C.C." were overprinted with the words "Wireless Institute of Australia." This was followed with "Certificate of Award" granted to _____ on having established two-way radio communication with one hundred countries, together with spaces for signatures of Federal President, Federal Secretary, Date of Issue, and Certificate Number.

T.V.L. BOOKLETS

Many members have already sent for and received the latest edition of Remington Rand's informative book on T.V.L. Executive were fortunate in obtaining a generous supply of these books with the result that they are still available. However, the number is limited. Members desiring a copy are requested to send a letter to the Federal Secretary together with 1d. in stamp.

DX C.C. MANAGER

After many years of sterling service the DX C.C. Manager, Geo. Morris, VK1BZB, has indicated that he wishes to relinquish his duties. The members with whom he has come into contact over the award of DX C.C. are indebted to Geo. who has had to carry out the necessary checking and arranging for certificates.

In view of this forthcoming resignation Federal Executive is looking for a successor to Geo. and those interested are referred to the announcement in another part of this issue. Here is a splendid opportunity for some interested person to carry out a very worthwhile and informative undertaking.

HANDBOOK FOR OPERATORS OF AMATEUR WIRELESS STATIONS, 1954 EDITION

The Amateur Administration has announced that the 1954 Edition of the Handbook for Operators of Amateur Wireless Stations is now available. It may be obtained from the Administration in Melbourne, or from the Superintendent, Wireless Branch, in the various States.

This book is prescribed for examination purposes and many members will be interested in it for this purpose. Before this, paragraphs relevant to Limited A.G.C.P. are now included.

FEDERAL QSL MANAGER

RAY JONES, VK1RJ, MANAGER

The Junta Central Fallera, Valencia (Spain), official body of the Fallas, the traditional Festival of Art, has organised, together with the U.R.E., a competition to be started between 1st November, 1954, and 31st January, 1955. The contest consisted of communicating with EAS stations in Australia and the Americas and bands to be awarded to the winning stations. For stations situated in Oceania, a minimum of two contacts were required before an application for an award could be made. Applications for awards made with communications on EAS bands must be made with communications on EAS bands. The Junta Central Fallera, Valencia, Spain, No. 3, Valencia, Spain. Like most of the contests staged by European countries, the particulars were forwarded by surface mail and did not reach here until the contest was almost over.

News from Bill Storer, VK1EY, as at 23rd December. Bill had run up a total of 105 countries to that date. Shortly before Xmas, Bill had the misfortune to fall and was squashed in the hydraulic system of a tractor. Fortunately no bones were broken, but the injury was painful and necessitated Bill sending his official brief to the hospital bandage now, painless, a laudable undertaking. Bill also kept off the Amateur bands for a period. He is looking forward to his return to VK and to his impending marriage. Reckon Bill 42 should loan Bill his new Mark VII. Again for the honeymoon—it's just a suggestion, Roy.

Chas was back in Australia, speaking to the writer from Macquarie a few days prior to his departure, expressed his disappointment at not having 100 countries. Chas had run up 89 to that stage, but despaired of adding to the total before he left. Take heart, Chas, many knowledgeable DX men during their stay here think considerably more than 89.

Bill Storer, now VK1RS, could only manage 68 Southern Europe, the Mediterranean, Northern Africa and South America are particularly difficult to QSO from Macquarie.

The following gratifying letter has been received from Ray Herbert, 3AAL/VSSKU/

GIZKU. I quote: "For the last few weeks I have been operating VSSKU, from the Shell Co. Rest House at Seria, Brunei. The station has now been closed down as I return to England on 12th January. Operation has been on 14 Mc. w. only and about 100 VKEs and ZLAs have been made, the contest being a new country for most of them. Due to air travel, the gear had to be very simple. The radio is a 100w. 100w. 100w. 100w. 100w. under 3 lb. It is a four-tube superhet. The tx is on a QSL sized chassis and ran at 20 watts; weight, 2 lb. The VKEs and ZLAs worked were very well behaved indeed, never calling out of turn and always ready to help. The information from other DX callers QSLs will be sent out in February on a one for one basis. QSLs to me should go to R.S.G.B. or direct to the call book QTM of GIZKU & Baldwin Avenue, Paddington, N.S.W. I would like to thank my thanks and T3 to all for many pleasant QSOs." Quite a pleasure and a refreshing change to receive such letters and am glad to have been numbered one of the 200.

Have enquired as to whether any cards have been sighted from VK1AF and VK1RL, but must answer in the negative. However, I do not see many of the outward bound cards.

NEW SOUTH WALES

The December monthly meeting of the W.I.A. (N.S.W. Div.) was held at Science House, Gloucester Street, Sydney, on 17th December, 1954. The President opened the meeting, time being given for the usual introductory features. The President outlined the objectives of the Division and reported on the work which has been done. A detailed report on the work to acquire a home for W.I.A. was outlined by the President and reported on the work done by the committee of which he is the chairman, and we feel that most members were agreeably surprised at the amount of work which these gentlemen have put into this project. A motion was carried empowering the committee to proceed with the negotiations in hand and to report to Council from time to time.

The Adams Cup was presented to the winner, M. G. Adams, ZZF, and all were pleased to see this Cup presented to him for the second successive year.

The lecture for the evening followed, delivered by Mr. ZZF, his subject being Single Sideband. Excellent and most interesting and informative, delving deeply into the intricacies of the technique, and finally convinced many of the attentive audience that s.s.b. transmission has many advantages over the more common employed. The vote of thanks was moved by the President and carried by acclamation.

Owing to the holiday atmosphere at present preventing the whole State, we did not report the results of the last month, but hope that the coming weeks will show a change for the better in this regard. The main gleanings from all bands this month appear to show that all had a good Xmas and appeared that most of the amateurs really enjoyed themselves.

The Broken Hill gang are really getting organised. Dudley SDQ has put in some fine work with his s.s.b. and running the full five wats relay gear around TULL and ZAYZ. He has now made his first contacts and is frequently forcing them to pre-arrange to the more congenial air-conditioned building down town, but nevertheless they do put in a lot of time on the air. They have been main topic of the local radio press. The nice 750 now and Lou, not to be outdone, has an ART which is doing a good job for him.

There will be a new call on from the Silver City in the New Year. We were recently granted old chas. ZARM Green. Keenops is touring and we had the pleasure of a visit from Noel Olive and family recently. IAJQ (Bathurst) is on the air again and is between travels on the road. We were given a track down to Sydney on 49 which we have.

Remember the coming Convocation at Ureana, Easter week-end; book as soon as possible with ZAYZ or ZABE.

SILENT KEY

It is with deep regret that we record the passing of:

Arthur Tonge, ex-VK4AR.

VICTORIA

The next general meeting of the Victorian Division of the W.I.A. is scheduled for Wednesday, 2nd January, at 8 p.m. in the Radio Theatre of the Melbourne Technical College, where a lecture will be given by a member of the staff of the College.

EDMONTON TRANSMITTER HOUSE

Bob JOJ picked out a most delightful spot for the Xmas round-up of the Edm. tx. house. The tx was hidden in "Norway Park" some eighteen miles from Melbourne in the Ferneries Gully area. The Park itself was an excellent place for a picnic with tables and seats set up already. The weather was fine and there also had a huge swimming pool. Most of the children had brought along their swim suits in the hope of such a treat, but the only thing that Bob couldn't provide was the weather which was rather bad. It was a very cold day and off most of the afternoon, but this didn't dampen the spirits of the tx hunters by any means. Six equipped ears started from the assembly point where Syd SGD, who was touring Victoria, had a word to say, and a word with the gang before they started out.

Bob JOJ, the bider of the tx, used a half wave doublet aerial supported on gum trees twenty-five feet high and supported in the center by a mast made of a 100 ft. 1 1/2 in. fence coming down the inside of a tubular steel mast. The overcast conditions and low cloud ceiling played tricks with the signal, resulting in the fact that every one of the competitors had to use their sealed envelopes. Bob had on a good idea in regard to the sealed envelopes by writing the directions on one side of the paper and sealing this down, then on the other side of the folded sheet he gave a bearing with the words "gross" in a north-easterly direction"—then folded this over and sealed it down, so that if a competitor lost the signal he could open up the first section and proceed in the direction given and then seal the signal up again. However, even this little idea was not enough this time and once again the tx was won. Eventually all the competitors arrived at the location with the exception of Fred ZADU, who managed to get himself into a spot of trouble.

During the past two years, 80 mx tx hunters have seen a considerable amount of the countryside of Victoria, finding out what lovely spots there are if you go "off the beaten track". M. attended the hunt which concluded with a picnic tea during one of the brief spells of sunshine. What about building some 80 mx masts this year and come along and join in the next hunt.

The next tx Hunt will be held on Sunday, 13th February, 1955.

CENTRAL WESTERN ZONE

Please to see that a call sign has been allotted to Keith Temmier, 3ATS, of Murtoa. A big welcome Keith. Many had the pleasure of f.b. contacts with Chas. IAC on Macquarie Island. Chas. IAC is due to return to the mainland in the near future and we hope he will have "welcome" Chas back to these parts where he will be doing some holiday relief at a local broadcasting station. 3AFO has been busy building a high powered rig using the 1000 in the final and employing super modulation; hope the performs to your expectations, Merv.

Bryon 3TA has erected a new set of rotary beams for 20 mx and 2 m and according to reports is doing well. The association of the 3ATE and Herb 3INN have been busy with harvesting operations, but still manage to get on the air occasionally. They often work the Horsham boys on 2 m with solid signal using the 1000 in the final and Herb 3INN has been active on the 10mx band and at present are doing a spot of rx-rebuilding to their respective rigs. Bob 3ARM was on the air recently after a couple of months re-building and is doing well. He has a new 1000 in as his signal was f.b. Heard that Allan 3JL is now rapidly improving and will soon be

TECHNICIAN

The Victorian Broadcasting Network requires the services of a Technician. P.M.G. Certificate is essential. Good amenities. Reply to 235 Collins St., Melb., or Telephone Central 4124.

100 per cent. again, sorry to hear that your son and daughter have also been on the sick list Allan, sincerely hope that the New Year brings you all back to normal health.

NORTH EASTERN ZONE

Stan 3AGT is heard on the bands from time to time and Frank 3ZU was reported to be testing a home-brewed 100-watt transmitter. Henry 3HP is now well wound up on his WL3 Fire Brigade network, and probably Des 3NP is using his spare time to good effect helping him. Incidentally, the impression is that Frank 3AGT and Henry 3HP are still in the same town too. Howard 3YV was one of the interesting people Ken 3KA met at a social function at Benalla a while ago. It is understood that an Amateur who hopes to make a definite appearance in the zone is Bruce 3QC.

One of the bright spots in January "A.R." was that article by Jim 3VK on the conversion of the BC series transmitter to the various Amateur bands. Also in the January "A.R." was a short and interesting article by Les 3AJE. The Editor can still use some material if anybody is interested in putting up their own equipment.

Jack 3AKC was reported to have enjoyed himself on the Mt. Stanley venture mentioned some issues ago. Vic 3ABX was on the track on a good communications rx recently, while Jack 3PF is reported active on his rural 3ABX. John 3AKL is building a 100-watt converter to work his 3ABX on 81 Mhz., and Hugh 3AHF is heard of from time to time. Alan 3UJ was recently heard at work on his new v.h.f. equipment, and Fred 3VAF was heard making his 3ABX into a 3DX. Although little is heard of Johnny JACK, Murray 3HZ was written up in the provincial news-sheet, reporting on the opening of the improved operating facilities at the local Commercial BC station.

A very interesting hour or so was put in recently while Des 3GDO detailed the working of a communications installation, amongst other things it was learnt that Doug has been allotted the call sign 3K. Chas 3ACB was heard on the 160-metre band, and John 3AKL on the provincial news-sheet. Alex 3AT and his XYL are receiving congratulations on the arrival of a harmonic. Ross. Col 3WQ is heard on the air quite regularly, but the same is not reported at the moment. Gertie 3GID and Tom 3T2. However Peter 3APP and Brian 3ASF are both

heard of indirectly. It is thought that Clarry and Vern are still "on deck" as is Jim, but nothing has actually been heard of our Associates just recently.

EASTERN ZONE

There has been quite a bit of activity of late. Joe 3TO was heard testing some new equipment recently. Ron 3PR has been on the air over the holidays, but believe he was not feeling quite his normal self, hope he is OK now. Ollie 3DOW and XYL were recently heard heading towards his old stamping ground at Inverell in VK2. Jack 3PK and family set out again, but also to collect the long awaited ARRL contest news. Gertie 3ACB will most likely acquire Jack's 3ABX now, so let's see you go to it and work the DX oasis, you only need to work another 39 countries for the DX CQ.

Les 3SG is very quiet, but has Arthur 3ABP been contacted for many moons, guess he is too busy keeping the local ABC rig going. Bill 3TY, at the opposition station, is on the bands when time permits.

QUEENSLAND

If you know of anyone interested in the Listeners' Group, which will hold a meeting in February, please contact the Secretary or pass the information on to the persons wishing to join.

The Division would like all members to submit ideas for the proposed holding of an Annual Convention to the Council for consideration. The hope to please something set aside from our usual meeting if a special event, so everyone will want to come again. What about it chaps? Let's have them.

The Xmas get-together went off very well with some 30 there, but it was surprising how long it took to dispose of the liquid refreshments and some three-quarters of an hour left around the wee small hours looking after the little that was left, while the philosophising by them was long and varied. An extra good get-together, and hope to see more there next year.

It is coming around to the time when we should be giving thought to the new Council. The old Council has been on the job for many years now, so what about giving considerations

to what sort of a job you could do to put the Division in the fore-front of affairs again. There is certainly a job for your talents instead of leaving it to a few to carry the burden. We find most of the Council at present have very little spare time and would welcome the chance of shedding some of the load. So please, your nomination!

Well chaps that's all, holiday time is not conducive to writing. See you at the meeting.

It is with regret that we record the passing of Arthur Tang, ex-VK2AR, who was prominent in W.I.A. affairs pre-war and Queenston. He was born in China early '30s to '40s. The Division extends their deepest sympathy to his relatives.

SOUTH AUSTRALIA

The VK3 Division of the W.I.A. the Division which is always on the ball, held its monthly general meeting for December in the club rooms and as is the usual practice it took the form of a Xmas Get-Together. More than a hundred members and visitors came along armed with a variety of goodie bags and Xmas, and a jolly good time was had by all. Naturally very little business was transacted and the main entertainment for the night was provided by Associate member Geoff Smith, who gave a talk on Bush Telegraphs, followed by caravan to Mt. Buffalo. Geoff excelled himself in his talk, both from the excellence of his coloured slides and also from the amount of information he provided concerning the trip without taking too much. He concluded his talk with a selection of slides taken at the time of the visit of Her Majesty the Queen, to Adelaide. "Doc" BND, in his speech of the evening summed up the opinion of all present in a few well chosen words and the prolonged applause at the close of the vote of thanks was clear evidence of the success of the talk.

A short "smoke-off" followed the talk and then the members and Commercial members a chance to sit at the tables with the goodies and the liquid refreshments ready for the combined attack of the members. At a given signal the numbers lined up and made a combined attack on the tables and for half an hour or so what was to be heard was the bustle and the sizzling munching and crunching of the members' jaws as they did

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their best to make the tables look like Mother Hubbard's cupboard. It goes without saying that they succeeded beyond their fondest dreams, and at the conclusion of the feast it was decided to make a "go" of it and have a part of the tables, which speaks volumes for the appetites of the members and also for the quality and quantity of the goodies brought along by the members.

Once again it has been proved beyond any doubt that this type of Xmas Get-Together every year is a success and is what the members want and the splendid attendance of members plus their obvious enjoyment with the goodies and the rag-tag, means that the Xmas Get-Together has come to stay. Members of the Committee are to be congratulated for the way in which they carried out their individual duties, and can sit back and feel well satisfied with their efforts in the 1954 Xmas Get-Together.

Among the welcome visitors were Messrs. R. Sennett (SKX), C. Meule (SKY), R. Grundy (SKO), D. G. (SKW) and D. W. (SKV) and Barry (SKB), ex-4BV, and of course John Clifton (SKH). We hope that all these gentlemen enjoyed themselves and we also hope that we will see them at future meetings, although of course John SKH can only make it if he can attend the Xmas meeting due to the difficulty of transporting him to and from his QTH. Incidentally, this transporting is usually handled by "Doc" SKD and Ken SKC in the usual amateur spirit and our thanks go to them for the gesture.

As chief steward, it was my duty to keep the liquid refreshments flowing and it was whilst carrying out this welcome duty that I hatched my little plot to clear the 30 band now and 40XK. I did this on the night and then worked myself some DX. I put away in the kitchen all the strawberry sponge cakes, all the iced fancies, all the cream cakes, in fact anything that would come in handy to hand round at the conclusion of the feast to the well known DXers in the hope that they would be so indisposed next evening that the said DX would only have me to come back to. Well I did fill them up! By the time that I had been serving them up four times to these jokers, the mere sight of me arriving at the kitchen door was enough to turn them green at the gills, and finally to tempt them further it became necessary for me to have a nibble or two at the iced fancies, etc., just to show them that all was on the up and up.

The DX was extra good the following night—but I only served them up because the doctor advised me to stay in bed for a day or two to get over my bilious attack, in fact he said that if I did not do as he advised, my fallen chest would remain in that state indefinitely (whether the doctor was a DX or not). Just to see how low these DX men will stoop to block me filling up me with cakes, knowing how weak and delicate my stomach is. Anyway, I bet I had a few mates!

Quite a number of regulars did not put in an appearance at the meeting and I have later learned that the reason was that members of their families were laid up because of colds, etc. We hope that all are well now and we were sorry that you could not come along, nevertheless we will be back in the same spot next year and then you can come along and make up for the good time that you missed this year.

SOUTH EAST AREAS

The first news of importance from the South East, as far as I am concerned, is that I have now correspondent for the monthly notes in South East Col. and I trust that you will be interested in the news that I have been elected to his list this month. He has been tinkering around with his beam a little but cannot see any change in the results. SFD has been noted as being a little more active in radio and reports that the family are progressing very well. Apart from a few fireworks on Guy Fawkes Day from his electrolytics, John finds everything working well. It is to be hoped that a few more hot days will come along soon because it would be nice to have John really come up on the air when it is over 100° centigrade. SKH is still building his shack; what a shack it must be, he has been on that shack for the past four months; it certainly cannot be a little shack! Anyway, Claude is still finding time

to build up some test equipment and the examples of his work which were displayed at the monthly meeting of the S.E. boys spoke for themselves in no uncertain manner. Will we be seeing you down here soon Claude? For one exciting night when I was writing notes, I thought that John SKA had at last been heard on the air. However, on second glance, I find that he will soon be starting on a new business venture and therefore will have even less time for activity in connection with Amateur Radio. Oh well, we can only hope and pray.

STW is listed among the missing this month and it has even been suggested that he was an absentee from the monthly meeting because the tea and sugar subs. were due. Speaking for myself, and knowing Tom as I do, I refuse to believe that he can only think that he has been so busy at his work that he has no time for anything else. As a fellow worker in the broadcasting game I know just how busy one can be. Ahem! SKJ, it all reports can be believed, thoroughly enjoyed himself at Xmas time but I am sure that he has managed to be heard on 40 and 20 mx at times. Lee Magrath (is that spelt right Leo?) now has his limited ticket and hopes that a number of the boys will be active on 2 mx to give him the chance to do some experimenting. I think it will be a certainty, Lee.

From Narracoota comes the news that Brian Geddes of Hyndman has had his limited license and is hoping to take the extra license in March, but harvesting activities are proving a bit of a stumbling block. Associate member Jack Fowler is fully occupied with bushfire fighting during the year as is SKC 5JA, and many others in the district. Lee has been operating mostly on 40 and 20 mx, although he did put in an appearance on 16 mx using his 80 mx antenna for that band. I note that Stuart was most active over the Xmas period and I am sure that he intended to have the most peculiar ideas as to how to spend that period of the year. It goes without saying that she eventually caught up with him and (the word is when!) him to build a new front antenna although he intended to contact two new countries in between. I also note that he has been doing a good bit of testing his equipment with an audio oscillator and a c.r.o. and managed to find quite a number of interesting things up there in the air. I did some testing along the same lines once, but gave it away very hurriedly when I just saw what was living inside my modulator. A few weeks was in the tx, well, only a crash-and-burn sort could produce such a revolting collection of remains. Never do it, Stuart, leave well alone!

Several visitors called in at Mount Gambier over the Xmas period and included Syd SKZ, who stayed around for the best part of a month, and also Bill SBL who was around for the New Year period.

By the time that these notes are being read it is hoped that the R.D. trophy will have been on display at Mt. Gambier during the week that it will be presented. I note also that the two boys that made such a grand showing in the contest will have been given the publicity they deserve. Naturally I refer to Stuart SKM, who did so well in the phone section and also Eric SKU who held more than his own in the c.w. section. We salute you boys.

At this time each year in the magazine I usually apologise for not being able to answer all of the Xmas and New Year greeting cards that find their way into my tent, much to the annoyance of the postman and the girls who have never been able to see my fatal fascination for the members of the opposite sex. The real reason for my inability to reply to them all is the fact that my £3,000 a year salary is usually spent during the month of December of that year and I only have my salary from the magazine to splash about on greeting cards, etc., and of course that does not go very far (compilation department, please note). I believe some time ago John (SKO) raised your salary 1½ times—Ed.) However, I do appreciate the good wishes and can only think that if you are all fair dinkum about these notes, then you must all be as weak in the sense as am. To those Amateurs who so correctly summed up the state of affairs in those cards which should have been packed in ice, also say thank you, but I have a team that will lick yours any day; to the XYL of Jim SPO, more than once do I really remind you of your "quidnunc" attitude. Did you have to write me "better thoughts"? To the devoted pair of readers from Geraldton, also many thanks and spare my blushes, and last but not least, thanks again to all who send the Xmas period cards. I must have a shanty at me! After all, if I expect you fellows to take it in the spirit with which it is dashed out, then I must do the same. On the record, I lapped it up!

Wyk SWM announced his engagement this month and of course has had to put up with ribald remarks and suggestions. He has not introduced me as yet to the lady of his choice, and if the truth is to be known, does not intend to do so. However, he thinks by doing this that his intended will make the necessary truth about his evil smelling pipe, then he is in for a shock, because if necessary I will have a talk or so of the smoke (flattering name) and send it to her as my share of the Gypsy's warning. POORHHHHHH!

Quite a number of Amateurs have visited the city over the Xmas period and included Ray 3ATN from Birchip, Leo W2ZJL (of the Pioneer Glen), Cliff W5L and now an electrical contractor in Ballarat or from Perth, who was passing through to VK5. I note also after an absence of twelve years from Adelaide. It was good to see these fellows, and Ray 3ATN gladdened my heart considerably by telling me that he had found his soul mate in VK5 and might possibly in the future have a VK5 call sign. Another deserter from the cause of Pinkcott, my propaganda is at last reaping results.



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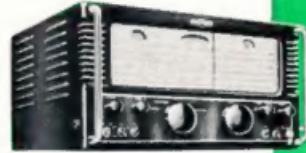
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